Department Presentations

Capital Tax Renewal Stakeholder Committee
April 13, 2017

Introduction

- Public Safety
  - Greg Testa, Chief of Police
  - Michael Calderazzo, Fire Chief

Radio Infrastructure

Description

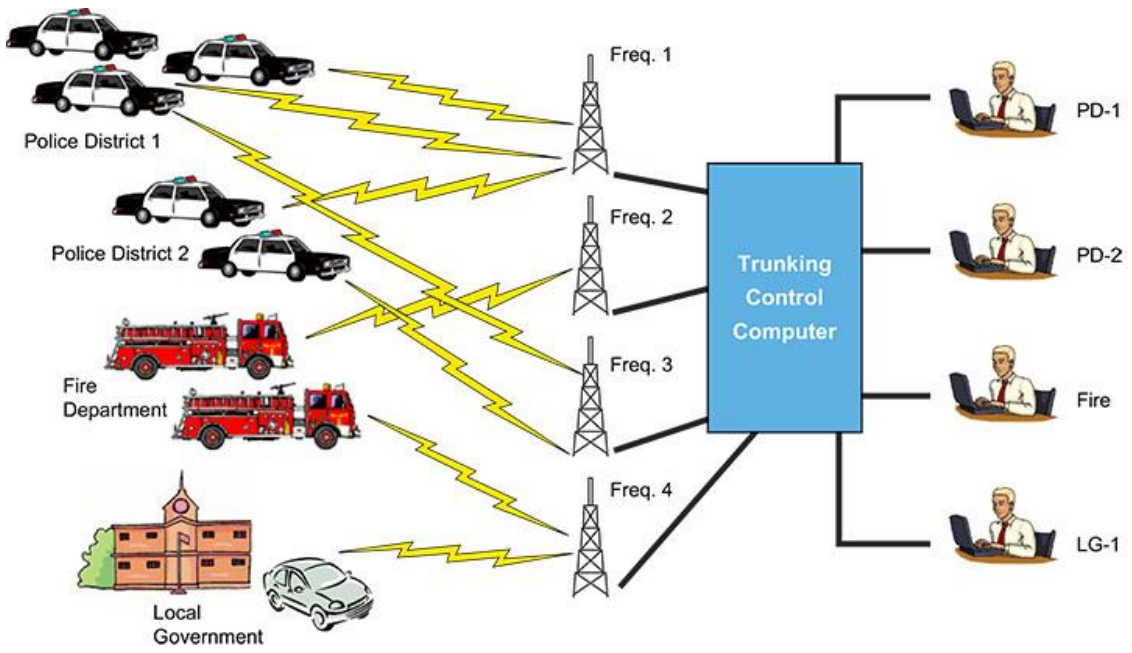
$6 million requested

New Radio System

- Consolidate 16 current sites into 4 sites
- Ensures high level of redundancy/ reliability
- Compatible with County, CU Boulder and others

Support Systems

- Site security, remote monitoring, back-up power, heating/cooling, shelter repairs



Radio Infrastructure

- Rationale/Design and Approval

  Current system:

  - Analog – obsolete, non-serviceable equipment (available from secondary outlets such as e-Bay only)
  - Voice conversations have coverage
  - Tower sites are too low in elevation and too close together

  New Proposed System

  - Move to a P25 digital radio system (standard for North American federal, state and local)
  - Leverages current VHF spectrum;
  - Optimizes coverage footprint
  - Significant upgrades to infrastructure and equip.

Radio Infrastructure

- Real Life Examples
  - Interoperability
  - Lack of Redundancy
  - No active monitoring
  - Ease of listening to system communications that lack privacy protections

Radio Infrastructure

Funding Needs

Recommendation: New Radio Stations and Support Systems for $6 million

Impact and Implications

New system design now available and proven in other communities.

If not funded, continued system failures are highly probable

Introduction

- Police Department
  - Curtis Johnson, Deputy Chief of Police

Police/Fire Incident Command Vehicle

Description

$570,000 requested

Replacement of Police and Fire Incident Command Vehicle (ICV)

- Mobile platform designed to facilitate the management of disasters, special events and critical incidents at the scene
- Dispatch/Communication
- Private/secure space for command personnel to make strategic decisions (plan, organize, coordinate)

Police/Fire Incident Command Vehicle

Police/Fire Incident Command Vehicle

Rationale/Design and Approval

- Current vehicle was purchased in 2000 and is due for replacement
- Replacement fund balance is not adequate to purchase a new vehicle
- Advancements in vehicle technology and in infrastructure technology are needed
- Updating police and fire response capability will improve management of disasters and critical incidents in a community that:
  - is vulnerable to wildfire
  - is considered the number one flood risk in Colorado
  - has the largest university in the state

Police/Fire Incident Command Vehicle

Funding Needs

- Total cost of fully outfitted vehicle: $750,000
- Additional funding from Fleet Replacement Fund: $180,000
- Funding requested: $570,000

Impact and Implications

- Managing disasters and critical incidents has become more complex
- ICV is an integral part of this function
- If not funded, options include evaluating renovating/upgrading vehicle using replacement funds

Rescue Vehicle

Rescue Vehicle

- Description
  - $330,280 requested
  - Light armored rescue vehicle to replace 37 year old vehicle.
  - Used to evacuate people from hazardous situations and move officers in to dangerous areas.
  - Current vehicle is unreliable, unsafe and cannot move enough people.

Rescue Vehicle

- Rationale/Design and Approval
  - Vehicle of this type necessary to safely respond to violent events and can also be used in floods and other hazardous conditions.
  - Similar vehicles used to rescue people during the Planned Parenthood shooting in Colorado Springs and Pulse Nightclub shooting in Orlando.
  - In both cases, lives were saved because this type of vehicle was used to rescue innocent people and get officers close to the danger.

Rescue Vehicle

- Rationale/Design and Approval

"I gotta tell you," Dyer said, "I caught a bunch of flak when we bought the BearCat," a kind of armored vehicle that law enforcement used as a battering ram to breach the nightclub. "If we had not had the BearCat that night, we would not have gotten in the building when we did, and I can guarantee you there would have been more victims."

Orlando Mayor Buddy Dyer

Rescue Vehicle

Funding Needs

Total cost = $330,280

Old vehicle has no replacement fund so there are no other funds available to purchase the new vehicle.

Impact and Implications

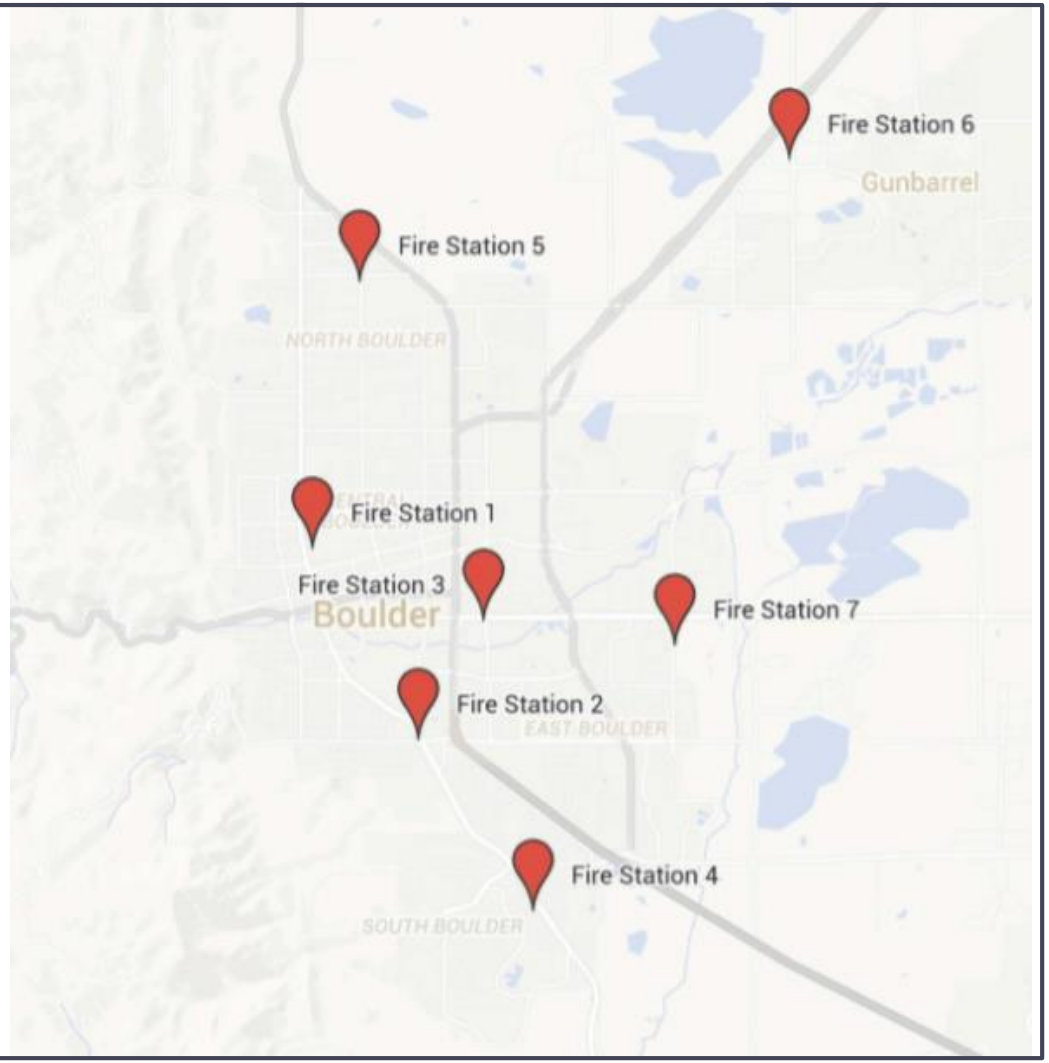
Improves department's ability to respond to hazardous situations. If unfunded, department will have a limited ability to rescue people from harm.

Introduction

- Fire-Rescue
  - Mike Calderazzo, Fire Chief

City of Boulder Fire Stations

- Boulder Fire-Rescue currently responds from 7 stations distributed throughout the City.
- The requests made by the fire department would fund:
  - Needed relocations or extensive remodels of existing stations 2, 3, and 4
  - A warehouse to store fire apparatus and fire department supplies and equipment

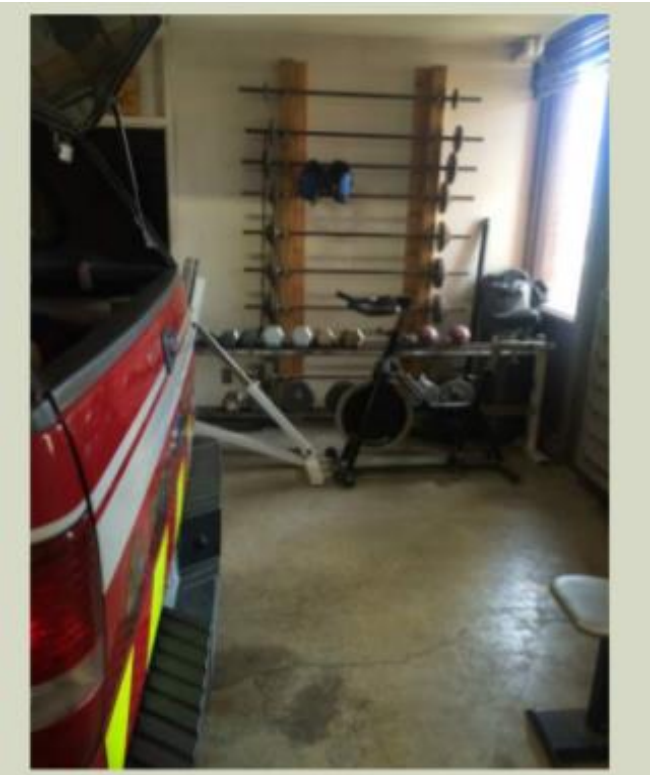


City of Boulder Fire Stations

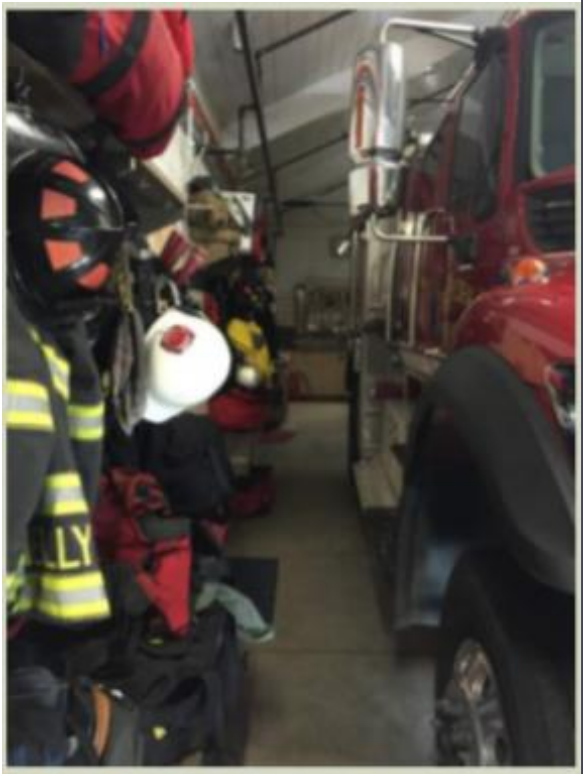
Fire Station	Year Built	Age	Existing Square Feet	Square Feet Needed	Square Feet Difference
1	1957	58	7,941	17,000	9,059
2	1959	56	4,752	15,333	10,581
3	1964	51	6,160	13,600 – 15,320	7,440 – 9,160
4	1967	48	2,000	11,000	9,000
5	1992	23	3,622	15,333	11,711
6	1979	36	3,435	11,000	7,565
7	2000	15	5,081	11,000	5,919

Common Shortcomings for Stations 2, 3, and 4

- Age
- Energy Efficiency
- Lack of Diverse Workplace Accommodations
- Health and Safety Impacts
- Space limitations
- Extended Travel Times



Boulder Fire Station 3 Apparatus Bay Exercise Area



Boulder Fire Station 2 Bunker Gear Storage

Station 3 – 30th & Arapahoe

- Description
  - $12 million requested
  - Built in 1964
  - Located in the 100-year floodplain
  - Community demographics have outgrown the department's ability for timely response
  - Has construction deficiencies with potential to expose personnel to occupational hazards
  - Lacks community outreach and meeting spaces

Station 3 – 30th & Arapahoe

- Rationale/Design and Approval
  - Identified in the department's master plan and capital improvement plan due to its location in the 100-year floodplain and inadequate response coverage.
  - It also aligns the department with city efforts to create sustainable and energy efficient infrastructure with which to provide services.

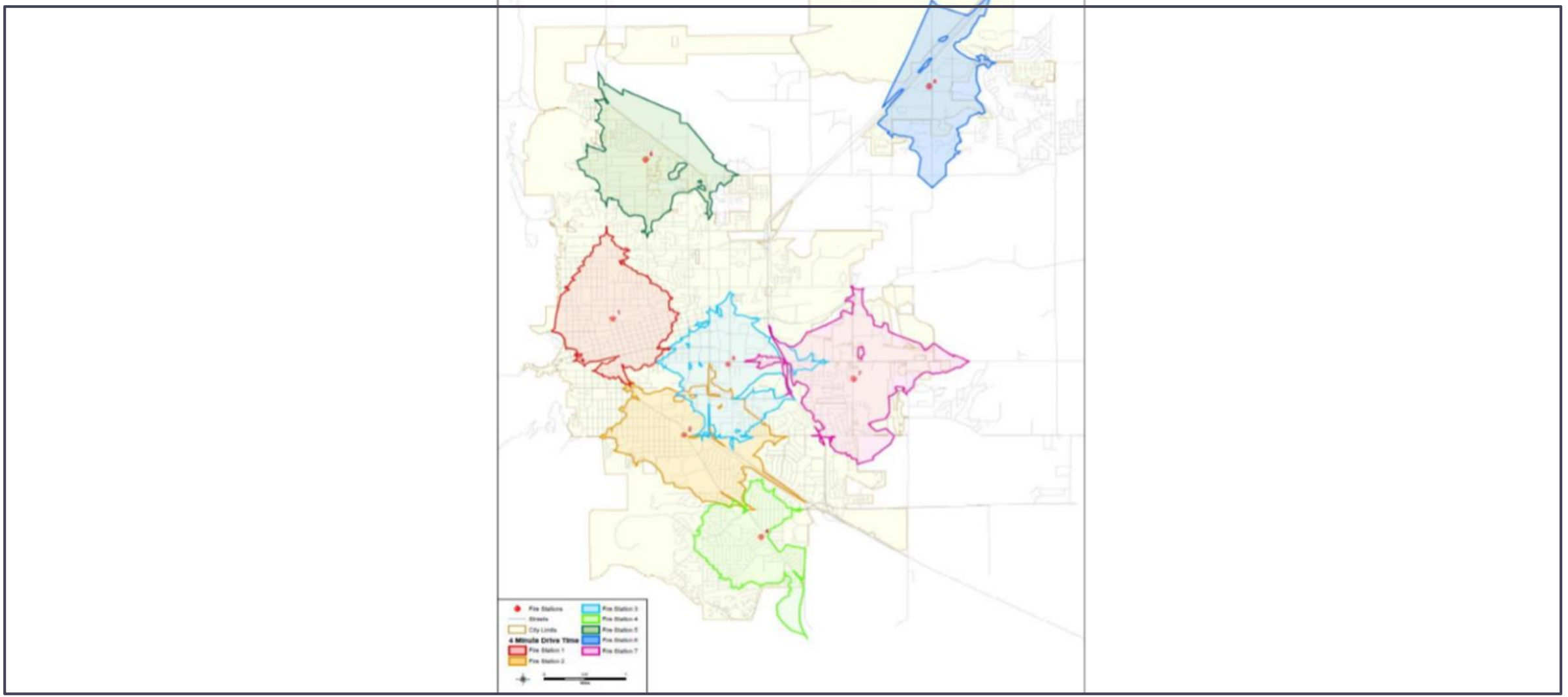
Station 3 – 30th & Arapahoe

- Funding Needs

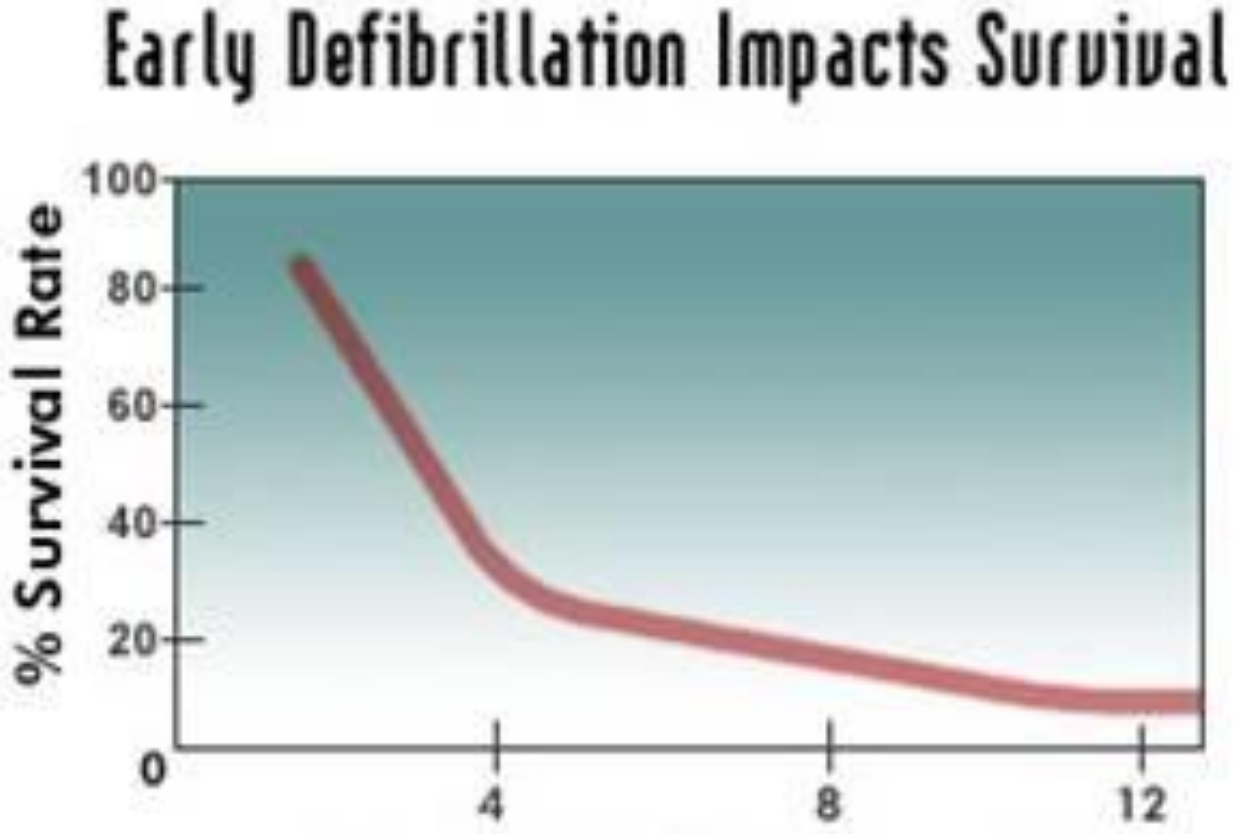
  $12 million dollars for facility costs including $4 million for land

- Impact and Implications
  - **Service Improvement** – Relocating will improve 4 minute travel time goals by 36%–37% depending on available locations.
  - **Resiliency** – Current facility is in 100-year floodplain and cannot be hardened against flood without major grade level changes rendering it un-useable for fire truck access.

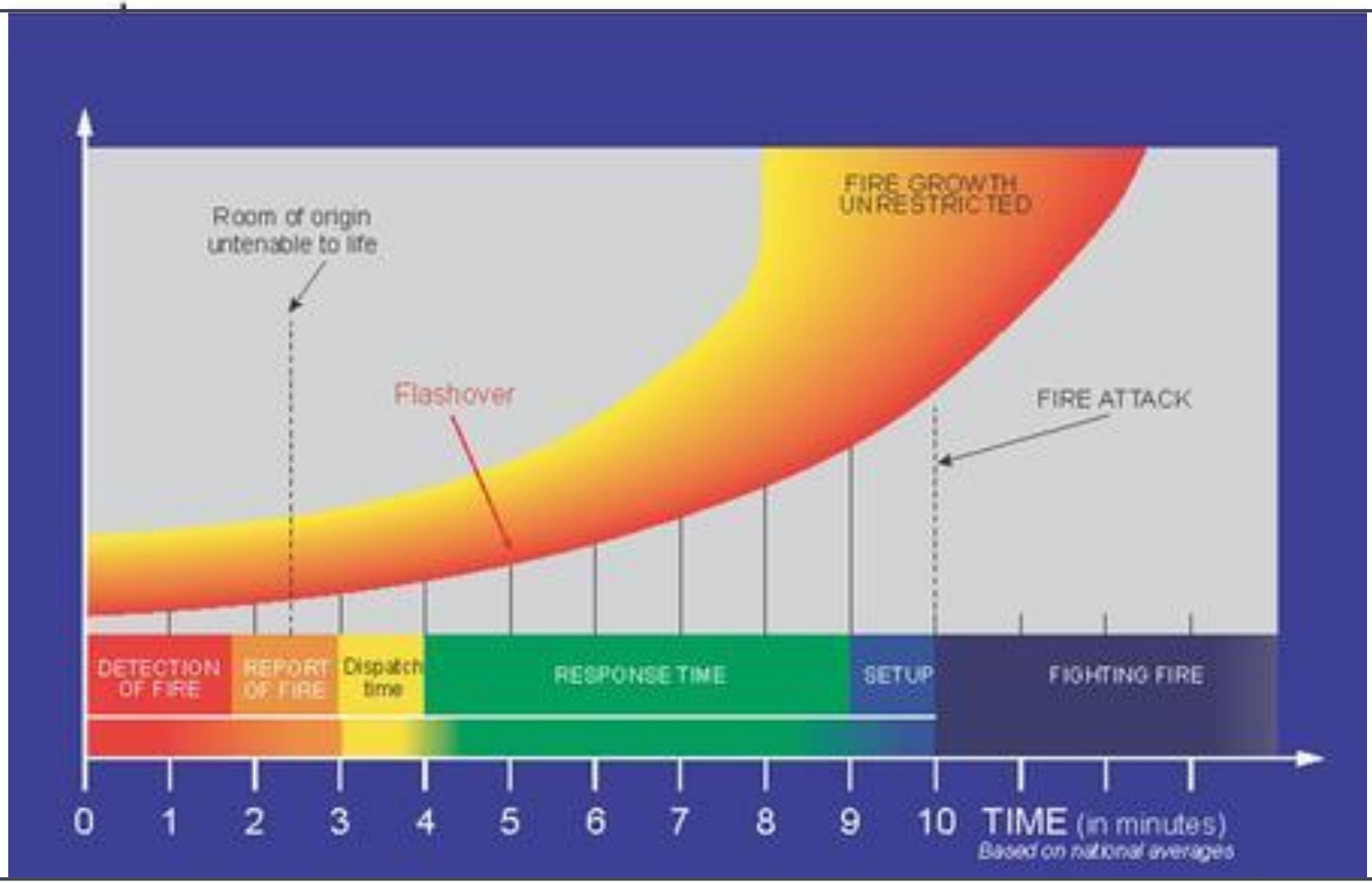
City of Boulder Fire Stations



Why 4 minute Travel Times Matter – Cardiac Arrest



Why 4 minute Travel Times Matter – Cardiac Arrest



Station 2/4

- Description
  - $14.2 million requested
  - These two stations have outgrown their original design parameters:
    - Station 2 is difficult to access with modern fire trucks and is not able to provide adequate facilities for a diverse workforce.
    - Station 4 is a converted residential house that is no longer able to efficiently serve the southern portion of the City.
  - Neither facility can accommodate EMS service improvements

Station 2/4

- Rationale/Design and Approval

The department master plan has identified these facilities for evaluation due to their location, insufficient size, and inefficient design. The stations are unable to provide effective service delivery to meet the risk in the community.

Station 2/4

- Funding Needs

  $14.2 million dollars for facility replacement/remodel costs.

- Station 2 – Baseline and Broadway: Impacts and Implications
  - Health and Safety – Current facility lacks industry standard decontamination and presents a potential for workforce exposure to exhaust fumes
  - Facility limitations– Current facility is 59 years old and does not meet the needs of a modern diverse workforce and energy efficiency standards.

Station 2/4

- Station 2 – Baseline and Broadway: Impacts and Implications
  - Response Inefficiency and Limitations – Facility is unable to meet the needs for EMS service expansion and quick wildland response
  - Station 2 is in its 60th year and does not meet current life safety and building codes.
    - Sleeping quarters open directly on to the apparatus floor.
    - The structural fire engine needs to back up 20' to allow the wildland fire engine to exit.
    - Exercise equipment is located in the apparatus bay and one of the bedrooms.
    - The ramp is located dangerously close to the intersection of Baseline and Broadway.

Station 2/4

Station 4 – 4100 Darley: Impacts and Implications

- Fire Station 4 is a non-conforming single family residence converted to a fire station in 1977. It was designed for a crew of two personnel and a mini-pumper.

- Even after maximizing the building footprint, it is about 1/3 the size needed and has no potential for expansion. Relocation would allow for improved response times and expansion of EMS service delivery to the south end of the city which will require additional room for response vehicles.

Warehouse – Diagonal and Jay

- Description
  - $2 million requested
  - Current building is an agricultural OSMP barn with space for 2 vehicles (1 is the incident command vehicle)
  - Supplies for facilities and firefighter safety gear are stored at various locations throughout the city incurring additional travel and an inability to inventory and track these supplies.

Warehouse

Funding Needs

$2 million

Impact and Implications

- Reserve trucks, equipment and supplies are stored in sheds across the city and an OSMP barn.
- Responsibilities for ordering, receiving, distribution and inventory are widely distributed and poorly tracked.
- A dedicated facility for support services and storage would consolidate equipment and support services operations under one roof and allow for better inventory control and asset management.

Warehouse

Impact and Implications

- Referenced in the master plan for “developing a fire materials and equipment storage solution.”
- Reserve trucks must be stored in a controlled environment or they must be weatherized – if forced to store them outside, the department will have to move one unit out of “ready reserve” status because it will take time to place it in service during an emergency.
- Reserves are not close to existing staff so they must be driven to and serviced off site by an emergency crew on a large fire truck.

Public Safety Questions?

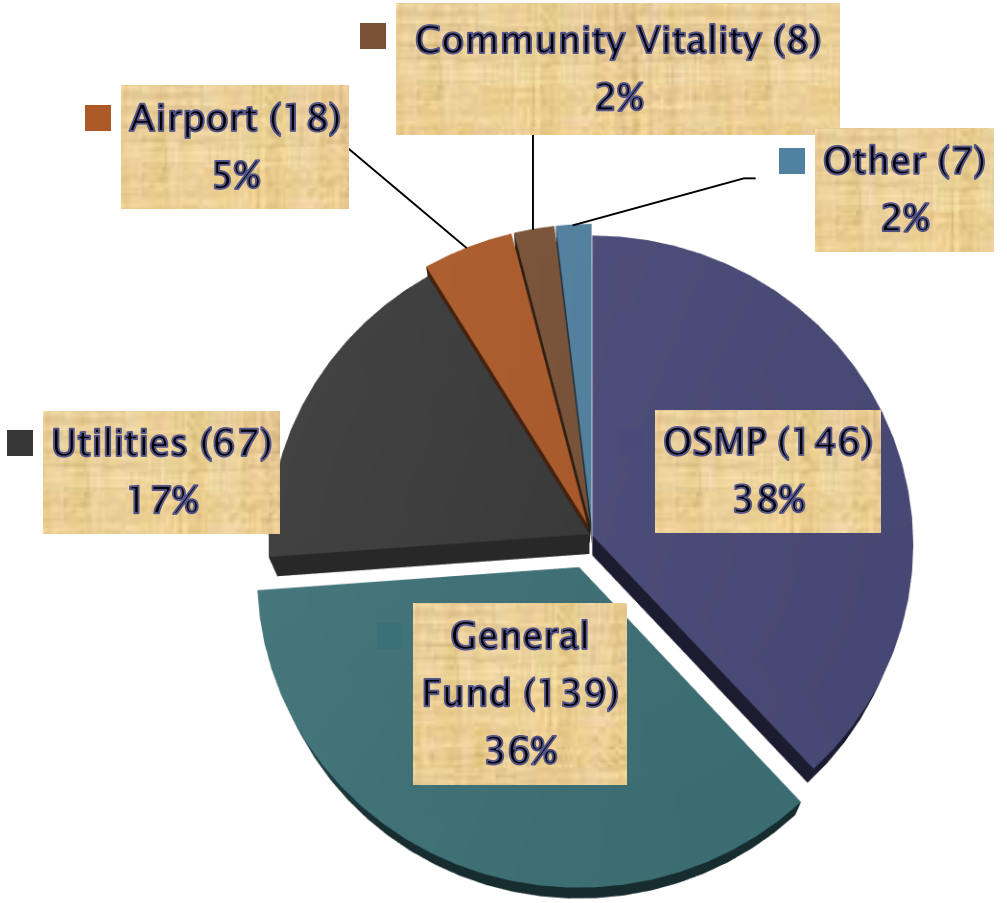
Break

Introduction

- Public Works, Facilities and Fleet
  - Joe Castro, Facilities and Fleet Manager

Facilities (Facilities and Asset Management, FAM)

- 135 of 385 buildings and structures
- Capital Improvement Program (CIP)
- Facility database
- Policies, standards and best practices
- Equipment Replacement Program
- Energy usage and sustainability



Total Buildings & Structures-385

1. Facilities Maintenance Backlog

Description

- $3.24 million requested
- Make repairs that are past due at some city facilities
  - FAM has $1.6 million a year for CIP projects
  - 2015 Estimate of 135 facilities -- $10 million
  - 2016 Detailed assessment of 20 facilities -- $10.6 million in backlog
- 9 Buildings in this request:
  - Fire Stations 1, 5, 6 and 7;
    Municipal Building;
    Main Library;
    George Reynolds Library;
    Carnegie Library;
    and Public Safety Building
  - Red - one of the city's 28 essential buildings

1. Facilities Maintenance Backlog

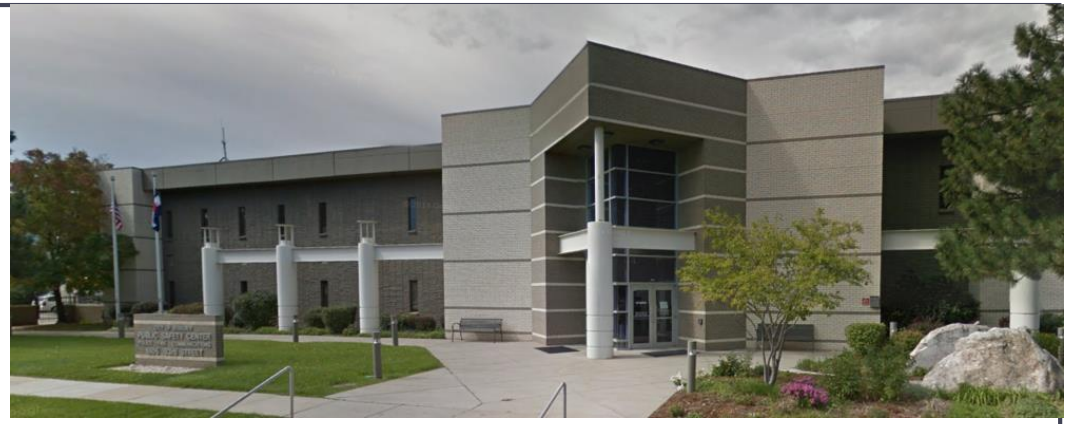
- Rationale/Design and Approval
  - Broad categories of work include:
    - Roofs $ 95,000
    - Fire Protection $ 400,000
    - Exterior Repairs $1,250,000
    - Plumbing $ 115,000
    - Door replacements & wall repair $1,380,000

  Total: $3,240,000

1. Facilities Maintenance Backlog

Funding Needs

- $3.24 million
- Public Safety Building – $630,000 – replace 195 doors to be bullet proof; repair fire sprinkler system
- Main Library $801,000 – replace 1970s era storefront windows; repair fire detection/sprinkler system



Impact and Implications

Current buildings will continue to deteriorate resulting in more costly repairs and could result in poor indoor air quality, loss of fire protection systems and unscheduled shutdowns.

2. Outdoor Lighting Compliance

- Description

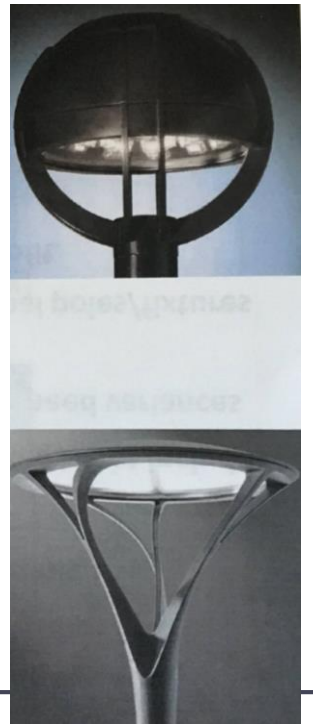
  $7.1 million requested

  Change outdoor lighting at city facilities throughout Boulder to comply with the July 2018 deadline for 2003 Outdoor Lighting Ordinance, meet new Building Performance Ordinance energy requirements for existing building by 2021 and meet current exit lighting requirements.

2. Outdoor Lighting Compliance

Rationale/Design and Approval

The objectives are to prevent light trespass, reduce light pollution (also known as “sky glow”), reduce excessive glare, promote energy conservation, and improve safety and security (including addressing the special nighttime lighting needs of an aging population.



112 facilities audited; 4,545 fixtures

- **73 percent lighting ordinance compliant !**

- **27 percent to go -- 1,230 fixtures non-compliant**
- **936 energy code non-compliant**

2. Outdoor Lighting Compliance

Funding Needs

Total need is $7.1 million; break-out of some areas:

- Pearl Street Mall $1,320,00
- Central Park $ 510,000
- Municipal Service Center $ 315,000
- Chautauqua $ 125,000
- Parking Garages $1,390,000
- Reservoir/Fire Training Ctr $ 205,000

Impact and Implications

Ordinances not met; energy conservation goals not met; in some cases unsafe exit lighting levels

Staff also evaluating energy performance bonds with 20+ year paybacks

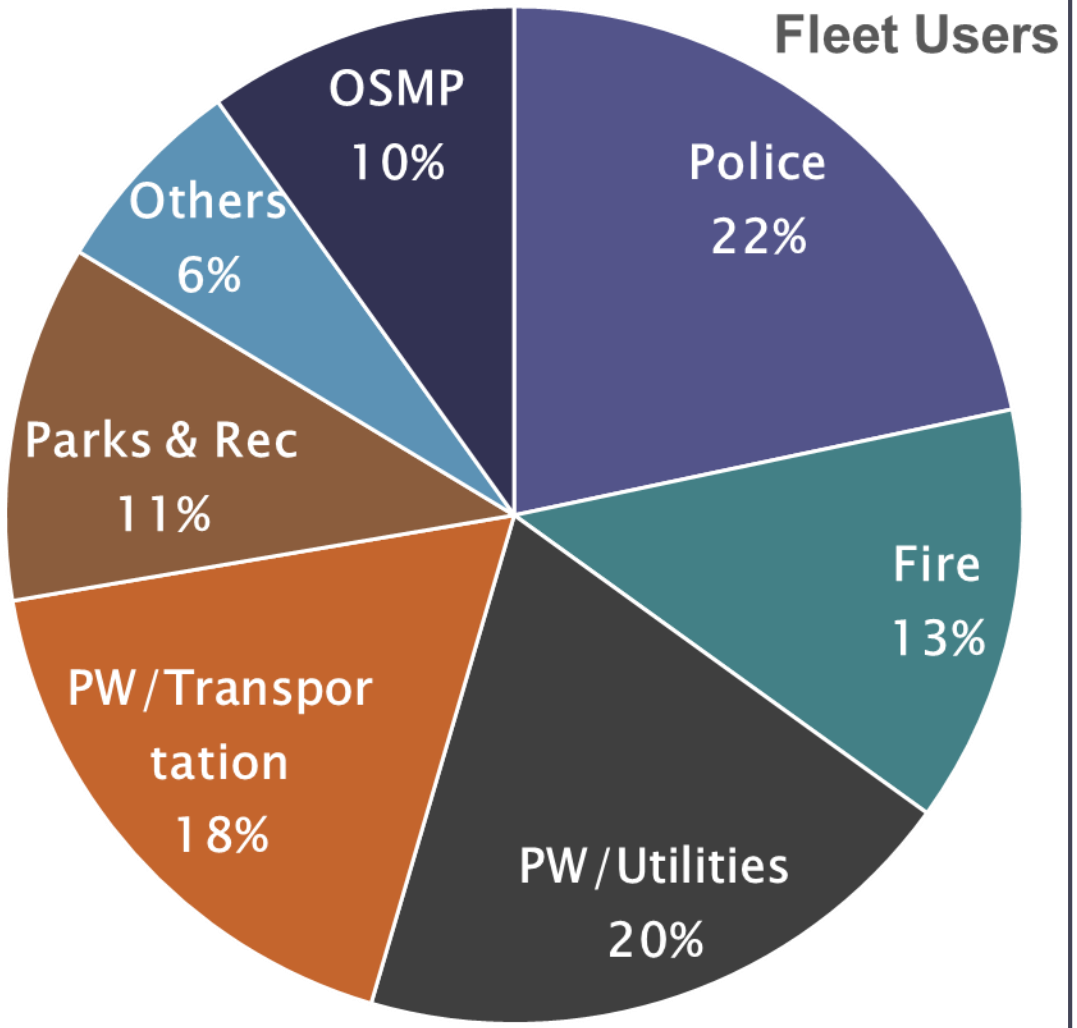
Fleet Facilities

Fleet Services

- Purchase and Maintain 445 City Vehicles & 600 equipment
- Budget for Replacement
- Maintain Communications Hardware and Frequencies
- Vehicle Wash Facility
- Fuel Services

Additional Services

- Alternative Fuels – reduce GHG emissions
- Vehicle Emissions Testing
- Fabricate and Install Equipment
- Land-based Radio Systems Services



3. Fleet Facility Repairs

- Description

  $1,405,000 in repairs and upgrades

  - Repairs to 28-year old facility – $505,000
  - – Replace Fire Alarm/Detection System
  - – Replace Mechanical Room HVAC
  - – Replace 2 Bay Infrared Heaters

  - Upgrades – $450,000
  - – Interior Reflective Paint
  - – Replace failing oil lines/system
  - – Remove 5 unsafe lifts; overhaul 25-ton lift; add 2 new
  - – Larger alternative fuel tank

  - Failed pavement – $450,000

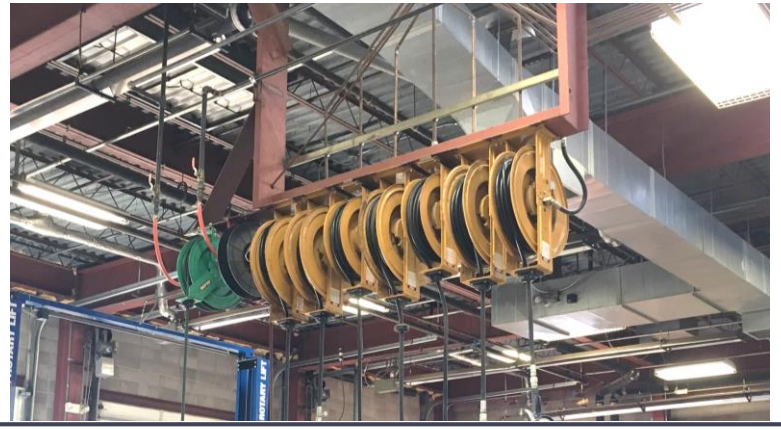
Existing

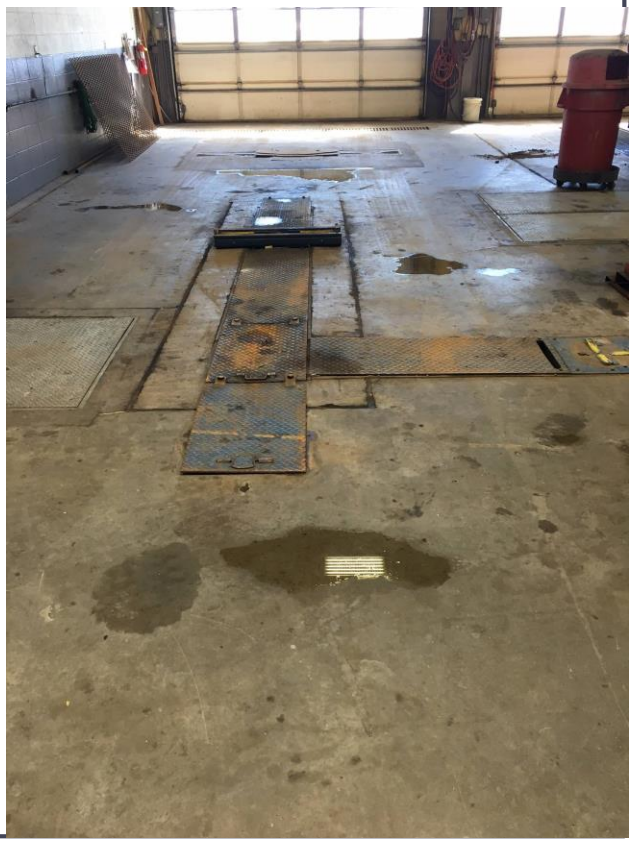
Example of New

3. Fleet Facility Repairs

Rationale/Design and Approval

- Reduce facility backlog of critical building systems
- Remove 'red-tagged' vehicle lift systems; overhaul existing lift
- Allow for more use of alternative fuels





4. Large Vehicle Washrack

- Description
  - $950,000 requested
  - Construct an enclosed, automated vehicle washrack with undercarriage washing

Existing

Example of New

4. Large Vehicle Washrack

- Rationale/Design and Approval
  - Remove corrosive effects of de-icers
  - Prolong life of vehicles and reduce repairs

3. & 4. Fleet Projects

Funding Needs

3. Repairs and Upgrades – $1,400,000
   - Facility Repairs
   - Upgrades
   - Pavement Repairs
4. Large Vehicle Washrack – $950,000

Impact and Implications

42 percent of fleet facilities and equipment provides direct support to emergency response services

Current 28-year-old facility and equipment not compatible for current needs and providing for a safe and efficient work environment

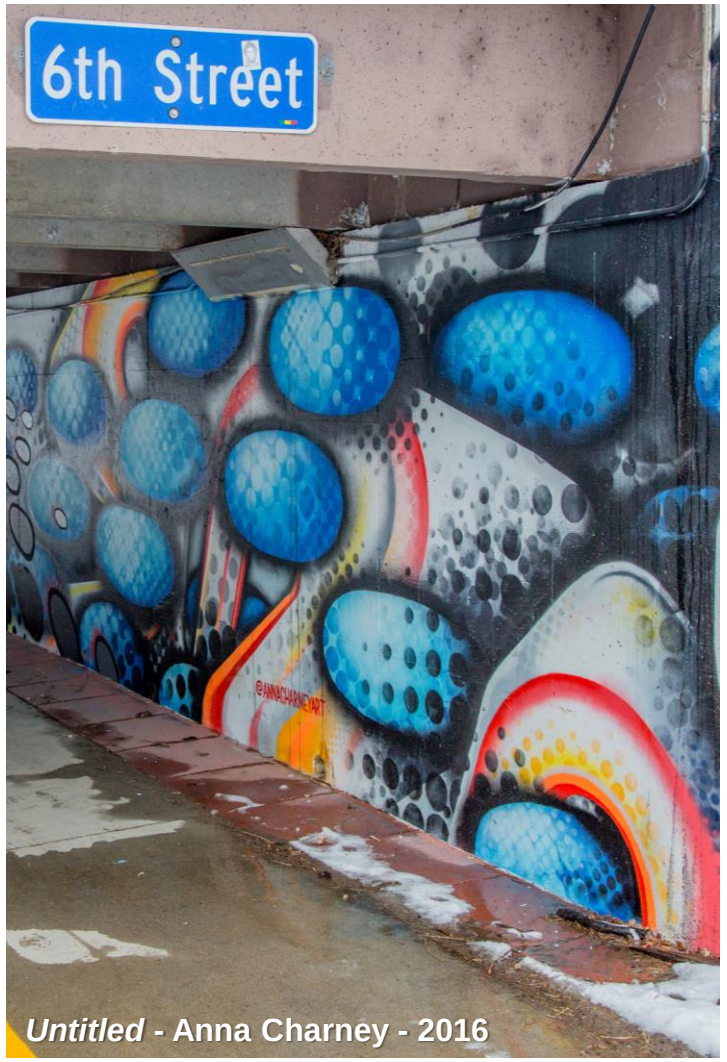
Introduction

- Office of Arts + Culture
  - Matt Chasansky, Arts & Cultural Services Manager

Public Art

Description

- $1.5 million requested
- Foundational strategic framework: Community Cultural Plan
- A series of 6 – 10 capital projects to commission works of art.

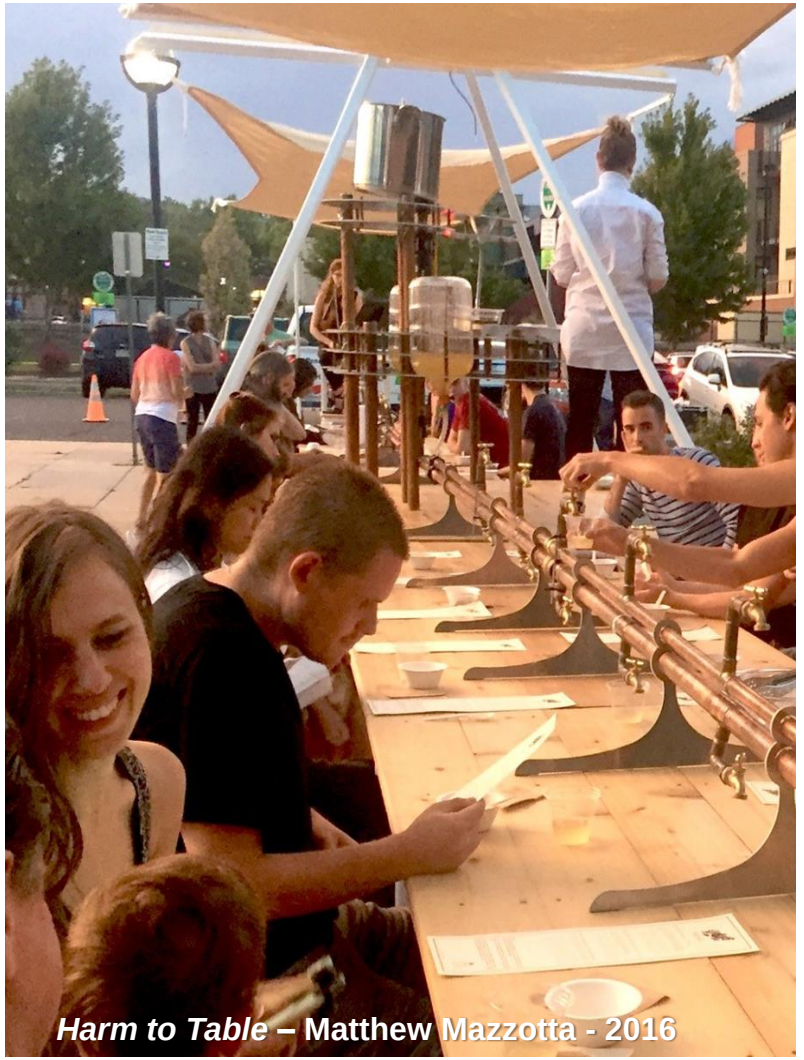


Untitled - Anna Charney - 2016

Public Art

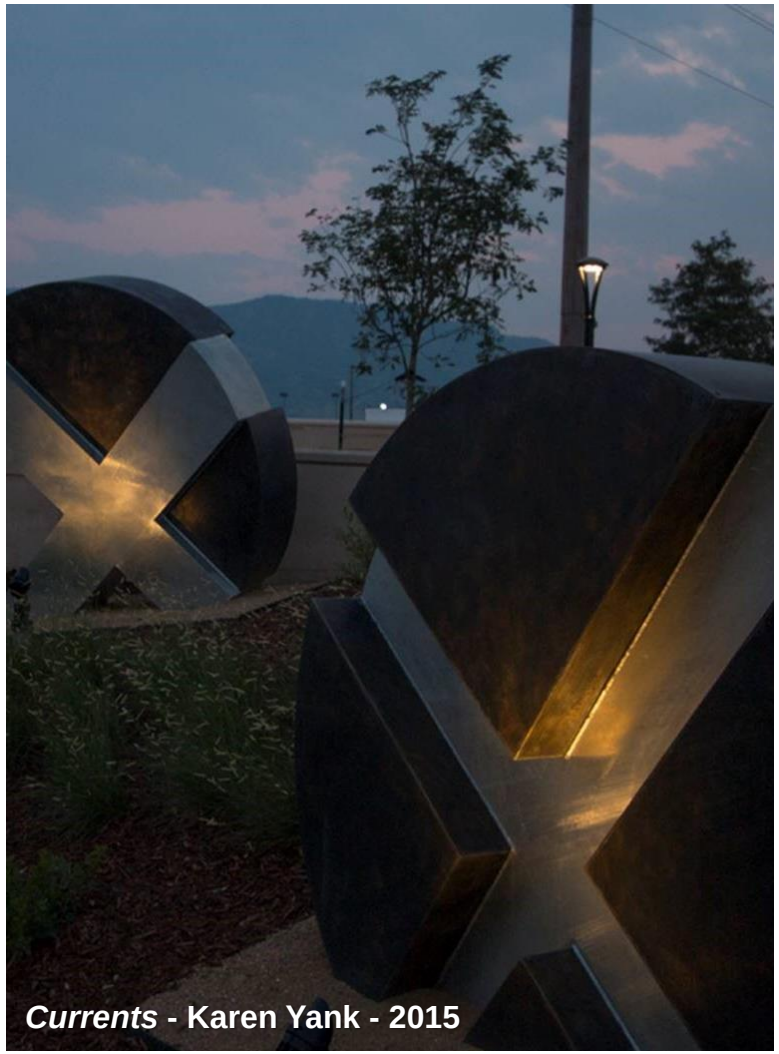
Description

- New Public Art Policy guides process.
- Implemented in stages.
- Some commissions will be associated with other projects funded by this tax, and therefore be tied in scope, site, and schedule. Others will be independent.
- 3 or 4 projects will begin selection each year.
- 6-9 month window for community selection and a further 9-12 months for design and construction.
- Each project's site, scope, criteria, and cost to be proposed in the 2018-2019 Public Art Implementation Plan.



Harm to Table – Matthew Mazzotta - 2016

Public Art


Currents - Karen Yank - 2015

Rationale/Design and Approval

- Updated Boulder Valley Comprehensive Plan, Cultural Plan, Public Art Implementation Plan.
- Public art has broad appeal, can enhance the success of other projects funded with this tax, and is an enormous return on a relatively small investment.
- Artist approval: community selection panel, Boulder Arts Commission, City Manager.
- Design / Construction approval: normal permitting.
- Each distinct public art commission has its own schedule, criteria, and design / approval processes.

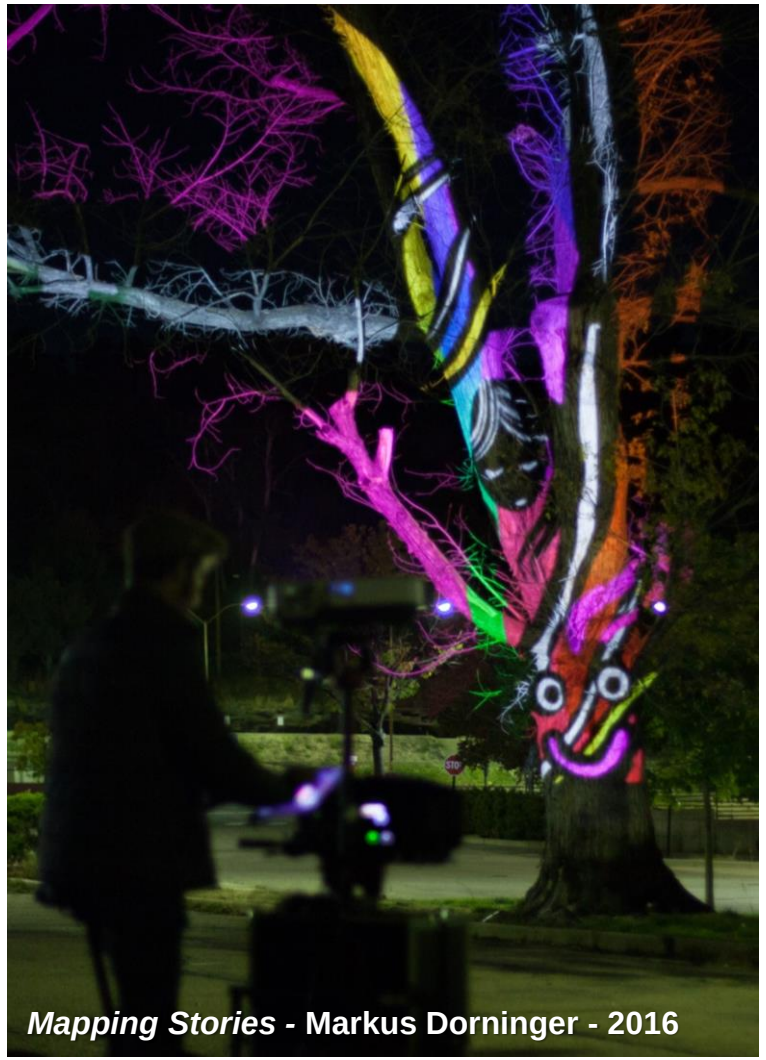
Public Art

Funding Needs

- Total Cost: ~1% of all projects or $1.5 million
- Alternative Funding: ad hoc
- Contingency Cost: 10-15% of each project budget.

Impact and Implications

- Significant benefits for economic vitality, social cohesion, attachment, and positive impacts on the visual environment are described in the Cultural Plan.
- Unfunded, no additional public art projects.



Mapping Stories - Markus Dorninger - 2016

Facilities, Fleet, and Art Questions?